

Indian Institute of Technology Kanpur Institute Foundation Day

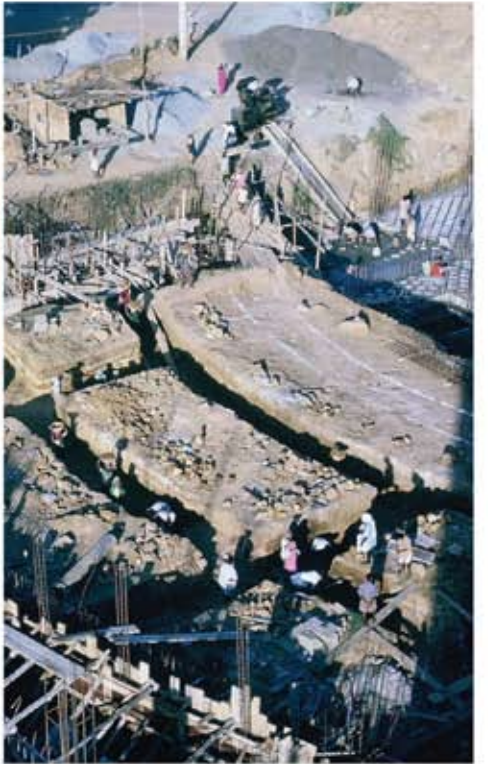
Wednesday, 2nd November, 2016

L-19, Lecture Hall Complex



Institute Fellows 2015





Director's message



Foundation Day is as important a function in the annual calendar of an Institute, as the birthday is to an individual and the family. Each Foundation Day offers an opportunity to review our journey as an Institute, identify the success and weakness in the past, and create a comprehensive plan for the future.

Despite challenges faced in terms of inadequacy of infrastructure, financial support, faculty recruitment and international component, the Institute has fared considerably well in the recent past in our core mandate of furthering knowledge in science and technology through dissemination and creation.

The Institute has added several new research equipment and facilities, recruited scores of promising new faculty members and launched multiples of academic and research initiatives that can place the Institute at a vantage point in the near future. Sincere and sustained efforts by our faculty colleagues and research scholars have brought laurels and accolades at regular intervals. The Institute is the National Coordinator in major government initiatives such as IMPRINT and Namame Gange and is active partner in several others. However, the expectations are far more and the Institute realizes its obligation to the millions in this country in terms of technology development and leadership through cutting edge research and innovation.

Specifically, the Institute would like to pursue certain thematic areas with greater emphasis where we have established credentials, core strength and emerging potential not only to create new avenues and knowledge but to translate them into viable technology to ensure economic and societal growth of the entire country. These initiatives have been defined in our recently submitted ambitious proposal to MHRD under the Vishwajeet scheme.

Given a healthy and vibrant ambience, the campus is clearly an attractive center for the generation of ideas, concepts, and technologies. International collaboration with leading universities abroad and partnership with R&D organizations and industry is now strongly nurtured and promoted by the Institute.

Finally, we reiterate that IIT Kanpur believes and relentlessly pursues the only mantra it knows - "excellence"!

Happy Diwali and best wishes

Indranil Manna



Institute Fellow 2015

Professor Dorairajan Balasubramanian



Professor Dorairajan Balasubramanian, popularly known as Prof. Balu, was born on the 28 August 1939. He earned his BSc in Chemistry from the University of Madras (1957) and his MSc in Chemistry from University of Rajasthan (1959) respectively. He completed his Ph.D. in 1965 from Columbia University, USA. He continued his stay in the USA till 1966 for his post-doctoral research as Jane Coffin Childs Fund Fellow at the University of Minnesota Medical School. Prof. Balasubramanian then joined the Department of Chemistry at IIT Kanpur as a Lecturer in the year 1966. The next eleven years saw him grow professionally at IIT Kanpur from the rank of Assistant Professor to Professor. In 1977, he moved to the then newly established University of Hyderabad as Professor and Dean of the School of Chemistry and served in that role for five years. In 1982, he moved to the Centre for Cellular & Molecular Biology (CCMB), Hyderabad, as a group leader, and served the Centre as its Deputy Director and later as Director till his superannuation from CCMB in the year 1998. Subsequently, Prof. Balasubramanian moved to the L. V. Prasad Eye Institute as the Director of Research of the Prof. Brien Holden Eye Research Centre. Currently, Prof Balasubramanian is a Distinguished Scientist and Director Emeritus of the centre.

Prof. Balasubramanian's research focuses on crystallins of the eye lens and their function as an agent in keeping the lens transparent. Later he diversified his research interests to include the genetics and pathobiology of eye diseases and on stem cell-based therapeutics for ocular diseases. Prof. Balasubramanian has published 6 books, of which three are prescribed textbooks in Chemistry curricula. He is credited with over 450 articles published in peer-reviewed national and international journals and has significantly contributed to popularizing science by writing columns in leading newspapers such as The Hindu. He is a member on the editorial boards of several international journals and also serves on a range of national and international scientific committees.

Prof. Balasubramanian is an elected fellow of all the three science academies of India, the American Association for the Advancement of Science (AAAS), the Academy of Sciences of the Developing World (TWAS), the Mauritius Academy of Science and Technology, and the National Academy of Sciences Leopoldina, Germany. The Government of India honoured him with the civilian award of Padma Shri in 2002, and the Government of France honoured him with the Chevalier de l'Ordre National de Merite, the same year. Prof. Balasubramanian has received several other awards from prestigious professional and institutional bodies, and a few of them include the Shanti Swarup Bhatnagar Prize in 1981, the Ranbaxy Research Award in 1990, the TWAS Award in 1995, the Khwarizmi Award of Iran in 1996, the Om Prakash Bhasin Award and the Kalinga Prize in 1997, the J. C. Bose Medal of the Indian National Science Academy, and the National Prize for Science Popularization from the Department of Science & Technology in 2002.

Prof. Balasubramanian's contributions to strengthening the academic and research programs of the institute, in particular the Chemistry curricula during his more than a decade-long stay at IIT Kanpur is significant. He played a key role in establishing the Department of Biological Sciences & Bioengineering at IIT Kanpur as a member of its National Advisory Committee and also as a mentor in its formative years. In recognition of his significant and varied contributions to the Institute and society at large, IIT Kanpur, on the occasion of its Founding Day, takes pride and pleasure in conferring upon Professor Dorairajan Balasubramanian the award of INSTITUTE FELLOW for the year 2015.



Institute Fellow 2015

Professor Ranendra Narayan Biswas



Professor Ranendra Narayan Biswas was born in 1939 and obtained his BSc degree with Physics Honours in 1957 from Presidency College, University of Calcutta. Thereafter he joined the Institute of Radiophysics and Electronics, one of a kind institute in India then, and was awarded the MSc.(Tech) degree by the University of Calcutta in 1960. Professor Biswas then proceeded to University of California at Berkeley and completed his PhD degree in 1966 on Electronic Circuits.

After a one-year stint at the renowned RCA Laboratories in the States, Professor Biswas joined IIT Kanpur in November 1967 as Assistant Professor and was elevated to the rank of Professor in 1977. He went on deputation during the years 1993- 1999 to assume the position of Director of the Central Electronics Engineering Research Institute, Pilani, Rajasthan.

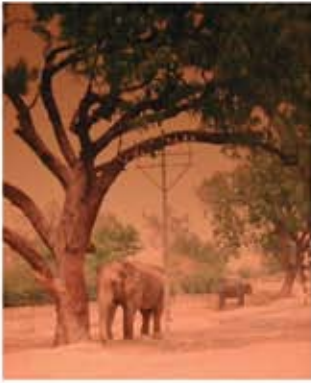
After returning from Pilani, Professor Biswas opted for early retirement from IIT Kanpur to establish the Ushamartin Academy of Communication Technology in collaboration with IIT Madras in 1999, and served as its founding Director. In 2002 he joined Dhirubhai Ambani Institute of Information & Communication Technology, Gandhinagar, Gujarat as a Distinguished Professor. Subsequently, from 2007 to 2009 he was a Professor in IIIT Hyderabad; from 2009 to 2011 a visiting Professor in NIIT University, Neemrana, Rajasthan and, then, a visiting faculty in IIIT Delhi. Professor Biswas is currently a visiting faculty in Shiv Nadar University.

Professor Biswas had served as Warden of Hall-I from 1972 to 1975 and again from 1984-1985. He was the Chairman of JEE during 1982-1983 and the Dean of Research and Development at IIT Kanpur from 1985 to 1987. Amongst many other achievements as a Dean he was instrumental in establishing the Doordarshan Program in the Department of Electrical Engineering, which today stands housed in a separate building with an exclusive laboratory. The ERNET program also started under his direction during that time at IIT Kanpur.

He was Head of the Electrical Engineering Department from 1991-1993 and thanks to his visionary leadership 10 new faculty joined the Department during his tenure.

Professor R. N. Biswas is known for his exemplary teaching both in and outside the classroom. He has more than 35 years of teaching and research experience in Electronic circuits, Telecommunication systems, Communication Networks, and Microprocessor Architecture and Systems. He believed in total learning, which resulted in the establishment of several student laboratories in the Department of Electrical Engineering. As early as 1968, he established the first clean room facility in India for students at IIT Kanpur, where devices could be fabricated. The Printed Circuit Board fabrication facility, in its present form, had started in 1986 under Professor Biswas's nurturing guidance. He also established a Microprocessor Laboratory for the students in early 1980 under a national training program. About one hundred teachers from several engineering colleges were introduced to microprocessors and their colleges were equipped with a system fabricated at IIT Kanpur. The laboratory evolved throughout the 1980s and continues to run even today. He was conferred the Distinguished Teacher Award of IIT Kanpur for the year 2006 for his inspired teaching.

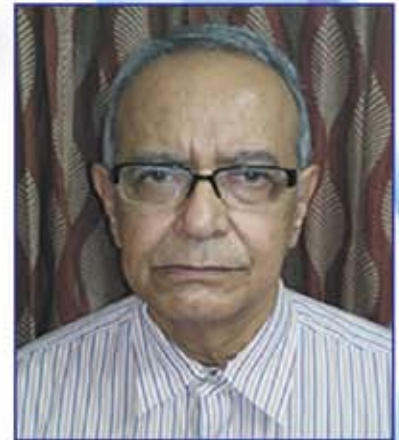
In recognition of his significant and varied contributions to the institute and society at large, IIT Kanpur, on the occasion of its Founding Day, takes pride and pleasure in conferring upon Professor Ranendra Narayan Biswas, the Award of INSTITUTE FELLOW for the year 2015.



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Institute Fellow 2015

Professor Asok Kumar Mallik



Professor Asok Kumar Mallik was born in Kolkata, West Bengal, in 1947. He obtained his Bachelors and Masters degrees in Mechanical Engineering from Bengal Engineering College (IEST), Shibpur in 1967 and 1969, respectively. After a brief stint there as a Teacher-Trainee, he joined the Department of Mechanical Engineering at IIT Delhi as a Lecturer in 1970. In 1971 he moved to IIT Kanpur as a Lecturer in the Department of Mechanical Engineering. He obtained his Ph. D. from IIT Kanpur in 1973. And he was elevated to the rank of Professor in 1982.

During his stay at IIT Kanpur, he visited the Institute of Sound and Vibration Research, Southampton, England for 16 months as a commonwealth scholar. At Southampton, he conducted fundamental and original work on waves in periodic structures. Later, he went to TH, Aachen and TU, Darmstadt, Germany as an Alexander von Humboldt fellow for a period of two years including four summers. His co-authored book *Theory of Mechanisms and Machines* continues to be a valuable reference.

At IIT Kanpur, he taught a large number of undergraduate and postgraduate courses in the broad area of Mechanics. These include Mechanics of Solids, Theory of Machines, Dynamics, Vibrations, among others. Additionally, he enthusiastically participated in the first year course on Physics. While at IIT Kanpur, he has developed a large number of teaching (visual) aids that continue to remain relevant, two educational movies, and a popular forty-lecture video course on Kinematics of Machines for NPTEL. Lately, he has been involved in creating and delivering a series of popular lectures on Mathematics. His research areas include analysis and control of mechanical vibrations, nonlinear dynamics, kinematics, and robotics. Along with his colleagues Prof. Ghosh and the Late Prof. Hatwal, he was one of the first to report chaotic dynamics experimentally in a mechanical system in 1982. He has guided many Ph. D. and M. Tech. Students and several B.Tech. projects. He has authored more than eighty research papers in international journals. Many of his reported results find prominent mention in a number of international textbooks and handbooks. He has authored/co-authored ten popular introductory and advanced textbooks published in India and overseas.

Prof. Mallik was the Head Centre of Robotics, Head Counselling service, Dean of Students' Affairs, Vice Chairman JEE, Senate Nominee in the Board of Governors and Chairman of the Fourth Undergraduate Review Committee at IIT Kanpur.

He is an elected fellow of the Indian National Academy of Engineering (INAE), the National Academy of Sciences, India (NASI), the Indian Academy of Sciences (IASc) and the Indian National Science Academy (INSA). He is an honorary life member of the Association of Machines and Mechanisms for his lifetime contributions. He has received Distinguished Alumnus Award of BESUS and INSA Teacher award. He is also a recipient of the Distinguished Teacher Award of IIT Kanpur. Indeed, he epitomized the "Ideal Teacher" for generations of students at IIT Kanpur. He is an eloquent speaker and his lectures continue to be watched by a large number of researchers cutting across disciplines. He took voluntary retirement from IIT Kanpur in the year 2009. Currently, he is affiliated with IEST Shibpur as a distinguished honorary professor where he continues to inspire new generations of students.

In recognition of his significant and varied contributions to the Institute and society at large, IIT Kanpur, on the occasion of its Founding Day, takes pride and pleasure in conferring upon Professor Asok Mallik the award of INSTITUTE FELLOW for the year 2015.

Awardees of Institute Fellow



Prof. E. C. Subbarao
Awarded in 2005



Mr. F. C. Kohli
Awarded in 2005



Prof. K. R. Sarma
Awarded in 2006



Prof. A. Vasudev
Awarded in 2007



Prof. G. D. Agarwal
Awarded in 2007



Prof. G. K. Lal
Awarded in 2008



Prof. P. T. Narasimhan
Awarded in 2009



Prof. A. K. Mittal
Awarded in 2009



Prof. S. K. Gupta
Awarded in 2010



Prof. N. Sathyamurthy
Awarded in 2013

Awardees of Institute Fellow



Prof. S. G. Dhande
Awarded in 2013



Prof. T. V. S. Ramamohan Rao
Awarded in 2013



Prof. M. Anandakrishnan
Awarded in 2014



Prof. M. A. Pai
Awarded in 2014



Prof. V. K. Stokes
Awarded in 2014

Prof. A. Ghosh
Awarded in 2014



Prof. D. Chakravorty
Awarded in 2014



Prof. D. Balasubramanian
Awarded in 2015



Prof. R. N. Biswas
Awarded in 2015



Prof. A. K. Mallik
Awarded in 2015





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